

**Amendments to the Specification**

Please replace paragraph [0006] with the following rewritten paragraph:

*A1*  
[0006] As explained above, a new optical head utilizing both the ~~near-field~~~~near-field~~ light generated in close proximity to an exit of a semiconductor laser and the photo detection by the semiconductor laser itself in combination has been studied. However, in order to reduce a beam size of laser light emitted from the semiconductor laser, it is necessary to reduce a size of an exit window of the semiconductor laser, and therefore an amount of the laser beam emitted from the semiconductor laser is limited. Then, it is no more difficult to record information on an optical record medium accurately. In this manner, the reduction of a beam size of the laser light is limited, and a record density could not be increased.

Please replace paragraph [0019] with the following rewritten paragraph:

*A2*  
[0019] According to the invention, in the first cladding layer 13 there is formed a first reflecting member 15 having a periodic wave-shaped structure which situates in close proximity to the ~~active layer 13~~~~active layer 12~~. The active layer 12 and cladding layers 13, 14 are made of III-V or II-VI compound semiconductor materials. In the present embodiment, the first reflecting member including the periodic wave-shaped structure is formed in the first cladding layer 13 in close proximity to the active layer 12, but according to the invention the first reflecting layer may be formed in an interface between the active layer 12 and the first cladding layer 13.

Please replace paragraph [0021] with the following rewritten paragraph:

*A3*  
[0021] The DFB laser 11 further comprises a ~~first~~~~second~~ reflecting member 20 and a ~~second~~~~third~~ reflecting member 23 provided on opposite end surfaces of the assembly of the semiconductor layers. The second reflecting member 20 includes a dielectric film 21 for

*AS  
Chnl*

performing the electrical insulation and increasing a light exit efficiency, and a metal film 22 for preventing undesired light emission and returning light into the laser efficiently. At a center of the metal film 22 there is formed a fine opening which defines an exit window 22a. The exit window 22a may be formed to have a diameter within a range from about  $\lambda/100$  to about  $\lambda$ . The third reflecting member 23 provided on the end surface opposite to the exit end surface is formed by multiple dielectric films in order to attain an optimum reflectance.

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*A4*

Please replace paragraph [0024] with the following rewritten paragraph:

*[0024]* Fig. 2 is a cross sectional view illustrating schematically a second embodiment of the near-field optical head according to the invention. In the present embodiment, portions similar to those of the previous embodiment are denoted by the same reference numerals used in Fig. 1 and their detailed explanation is dispensed with. The near-field optical head of the present embodiment is constructed as recording and reading optical head, in which information can be recorded on an optical record medium with a high density and the thus recorded information can be read out accurately. The recording operation is identical with that of the previous embodiment shown in Fig. 1. That is to say, the current injected into the DFB laser 11 from the injection current source 26 is modulated in accordance with the information signal, and the near-field light whose intensity is modulated in accordance with the information signal is made incident upon the optical record medium 27 arranged in close proximity to the DFB laser through the exit window 22a to give the thermal change in the material of the optical record medium.

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*PR*

Please replace paragraph [0025] with the following rewritten paragraph:

*[0025]* Upon reading the information out of the optical record medium 27, a constant current is injected from the injection current source 26 into the DFB laser 11, and

*AS Cnd*  
near-field light having a constant intensity is made incident upon the optical record medium 27 by means of the exit window 22a. Light reflected by the optical record medium is modulated in accordance with the information recorded on the optical record medium and is made incident upon the DFB laser 11 through the exit window 22a. Then, an oscillation threshold level of the DFB laser 11 is changed in accordance with the return light, and the number of photons within the laser is changed. This results in a change of that the voltage across the electrodes 17 and 19 ~~is changed~~, and this voltage change is detected by a voltage change detecting circuit 28 to produce a reproduction signal representing the information read out of the optical record medium 27.

Please replace paragraph [0026] with the following rewritten paragraph:

*NY*  
[0026] Fig. 3 is a schematic cross sectional view showing a third embodiment of the near-field optical head according to the invention. The near-field optical head of this embodiment is also constructed as the recording and reading optical head, for example, of the first embodiment like as the second embodiment. However, in the present embodiment, a photodetector 31 is arranged behind the third reflecting member 23 of the DFB laser 11. The light reflected by the optical record medium 26 is returned into the DFB laser 11 and is amplified therein. The amplified light emanates from the third reflecting member 23 and is made incident upon the photodetector 31. In this manner, the photodetector 31 produces the reproduced signal.

Please replace paragraph [0038] with the following rewritten paragraph:

[0038] As explained above in detail, in the near-field optical head according to the invention, use is made of the distributed feedback laser 11 including the first reflecting member 15 having the periodic wave-shaped structure, the second reflecting member 20 provided on the front end surface and having the exit window 22a formed by the fine aperture, and the third reflecting member 23 provided on the rear end surface, and the near-field laser light emanating from the exit window 22a is made incident upon the optical record medium 27 arranged in the near-field of the exit window 22a. Therefore, the laser can operate stably even under the return light, and the information can be recorded with an extremely high density. Upon the reproduction, the near-field laser light reflected by the optical record medium 27 is returned into the DFB laser 11 via the exit window 22a. Then, the oscillation threshold value is changed, and thus the number of photons within the laser is changed accordingly. Therefore, the voltage across the current injection electrodes 17 and 19 is changed, and this voltage change is directly detected by the voltage change detecting circuit 28 to produce the reproduced signal. In the other embodiment, the return laser light is amplified in the laser, and the thus amplified laser light emanating from the third reflecting member 23 is received by the photodetector 31 arranged separately from the DFB laser 11. In this manner, the information recorded on the optical record medium 27 with the high density can be read out with a high sensitivity.